

Remarks

The Examiner made new grounds of rejection in the Action and made the Action final. The Examiner stated that Applicants' Declaration (under 37 C.F.R. 1.131) necessitated the new grounds of rejection.

The following is a quote from MPEP 706.07(a).

"Under present practice, second or any subsequent actions on the merits shall be final, except where the examiner introduces a new ground of rejection that is neither necessitated by applicant's amendment of the claims nor based on information submitted in an information disclosure statement filed during the period set forth in 37 CFR 1.97(c) with the fee set forth in 37 CFR 1.17(p). . . . Furthermore, a second or any subsequent action on the merits in any application or patent undergoing reexamination proceedings will not be made final if it includes a rejection, on newly cited art, other than information submitted in an information disclosure statement filed under 37 CFR 1.97(c) with the fee set forth in 37 CFR 1.17 (p), of any claim not amended by applicant or patent owner in spite of the fact that other claims may have been amended to require newly cited art."

Applicants did not amend the claims in the prior response, and they did not submit an information disclosure statement in the prior response. Applicants submitted a Declaration under 37 C.F.R. 1.131. This Declaration is not an amendment to the claims requiring a new search. The finality of the action was premature, and the Examiner incorrectly made the Action final. Applicants request that the Examiner withdraw the finality of the prior Action in compliance with MPEP 706.07(a) and 706.07(e).

The amendment to claim 11 is for form only. The word "table" was changed to the word "stable." This was a grammatical correction and does not require further consideration or searching.

The Examiner rejected claims 1, 8, 11, 14, 26-27, 30, 35, 41-42, 45, 52, 55, 57, 64, and 67 under 35 U.S.C. § 103 as being unpatentable by U.S. Patent No. 5,930,682, issued to Schwartz ("Schwartz").

Regarding claim 1, in the Summary of the Invention, Schwartz discloses that a "low-bandwidth transmission line can be a line that is pre-installed in a building, such as 10 base T cable, telephone wire, fiber-optic cable, unshielded cable or power cable." Column 4, lines 19-22. However, Schwartz does not disclose or teach an optical receiving system, and the Examiner does not allege that Schwartz does teach or disclose an optical receiving system. Further, Schwartz does not disclose or teach a converting system configured to convert the lower

frequency signal to an optical signal. The mere mention of the existence of a fiber optic cable somewhere in the Schwartz system does not mean Schwartz teaches the converting system required in Applicants' claims, and the Examiner cannot make that jump. Further, the Examiner has not alleged that such a conversion system is inherent in the system disclosed in Schwartz, and there is no disclosure in Schwartz from which the Examiner could make an inherency argument.

Moreover, although alleged by the Examiner, Schwartz does not teach a converting system configured to convert the communication signal from the frequency to a stable lower frequency using a stable timing signal as required in Applicants claims. Schwartz does disclose a reference signal generated by a central reference means 82. But, Schwartz does not disclose that the reference signal is used for any timing aspects to produce a stable timing signal used to convert a frequency to a stable lower frequency.

Schwartz states that the reference signal is used to control the "frequency of the remote reference signal, preferably such that it is equal to the frequency of the central reference signal." Column 5, lines 63-65. Schwartz further discloses that the "[c]entral reference means 82 comprises a central reference oscillator (local oscillator) 80. Oscillator 80 is preferably a voltage-controlled high-frequency oscillator which by itself would emit a signal of low frequency stability." Column 6, lines 4-6. Further, "Oscillator 80 is stabilized by a central frequency stabilization means comprising a phase comparator 84, a tunable frequency divider 86 characterized by a tunable integer N, and a low-pass filter 88." Column 6, lines 9-12. Schwartz is using a signal of another frequency as a reference only, not as a timing source. The frequency of the reference signal may be changed by changing the value N of the tunable frequency divider 86. That signal is then used to generate a global tuning signal, which is the ultimate reference. Schwartz even states "the global tuning signal is of a frequency suitable for transmission through transmission means 26, and such that the frequency bands of the global tuning signal and the intermediate signal do not overlap." Column 6, lines 52-56. The oscillator 80 of Schwartz is not stabilized by a stable timing signal.

Thus, Schwartz does not disclose the stable timing signal of Applicants' claims. Schwartz does not disclose a stabilizing system configured to generate a stable timing signal.

The Examiner may attempt to claim that the reference signal is the same thing as the timing signal, just with a different name. However, that would not be correct. While the

Examiner is correct that limitations cannot be imported from the specification into the claims, the Examiner must review the claim terms and the teachings in the cited references to determine if what is taught in the cited references is the same as what is claimed. That is especially important in electrical arts where inventors refer to components by different names.

Here, where the component in the cited reference (regardless of its name) is not the same and does not have the same function as the claimed limitation, it is not even referred to the same by Schwartz and the present Applicants, and Applicant has shown why the cited component and the claimed limitation are not the same, the Examiner must provide a reasoned analysis why the Examiner construes them to be the same. *In re Lee*, 61 USPQ2d 1430, 1434 (Fed. Cir. 2002). This is true even though the Examiner may give the claim term its broadest reasonable meaning. The Examiner may not just ignore *In re Lee*.

Additionally, the Examiner does not provide a suggestion to modify the disclosure of Schwartz to arrive at the claimed limitations. The Examiner's continued use of the theory (here or in other claims) that something would be placed on a tower to reduce blockage of signals caused by tall buildings is not supported by any evidence, and Applicants traverse the same.

Regarding claim 8, claim 8 is believed patentable for the same reasons stated above. Additionally, Schwartz does not teach, disclose, or suggest a timing source configured to generate the stable timing signal. Nor does the Examiner allege that it does. Further, Schwartz does not teach, disclose, or suggest a stabilized local oscillator configured to receive the stable timing signal and to use the stable timing signal as an input to generate a stabilized oscillator signal.

Regarding independent claim 11, Schwartz does not teach, disclose, or suggest a fiber optic cable extending from approximately the upper portion of the tower to at least approximately the lower portion of the tower, and the Examiner does not allege that it does. Schwartz does not teach, disclose, or suggest a timing source located at approximately the upper portion of the tower and configured to receive a stable timing source signal and to transmit a stable timing source based stable timing signal. Schwartz does not teach, disclose, or suggest a stabilized local oscillator located at approximately the upper portion of the tower configured to receive the table timing source based stable timing signal and to use the table timing source based stable timing signal as an input to generate a stabilized oscillator signal. Schwartz does

not teach, disclose, or suggest a block converter configured to convert the communication signal from the frequency to a stable lower frequency using the stabilized local oscillator signal, and the Examiner does not allege that it does. Schwartz does not teach, disclose, or suggest an optical converting system located at approximately the upper portion of the tower and configured to convert the lower frequency communication signal to an optical signal and to transmit the optical signal over the fiber optic cable from approximately the upper portion of the tower, and the Examiner does not allege that it does. Schwartz does not teach, disclose, or suggest an optical receiving system configured to receive the optical signal over the fiber optic cable, and the Examiner does not allege that it does. Schwartz does not teach, disclose, or suggest an MMDS system, and the Examiner does not allege that it does.

Further, regarding the Examiner's stated reason for modifying Schwartz to meet the limitations of claim 11, it should be noted that Applicants stated their concerns with prior systems in the application. Those concerns included that much of the communication signal is lost due to noise and resistive loss and that thick cables were required used to carry a signal of adequate frequency. Thus, the Applicants' system reduces losses in the transmission lines and has lighter cables that reduces the load on the tower.

Thus, again, the Examiner is using impermissible hindsight. Again, the Examiner is using the teachings in Applicants' disclosure as a basis for the rejection. Again, Applicants remind the examiner that this is not permissible under *In re Lee* at 1434. Further, in responding to Applicants' request for reasoned findings, Applicants request that the Examiner not ONLY re-write MPEP Form Paragraphs 7.37.02 (regarding whether or not features of a second reference may be incorporated into a first reference), 7.37.03 (regarding hindsight reasoning), and 7.37.04 (regarding the Examiner has not provided adequate reasons to combine references) and then re-state the rejection, but that the Examiner explain the reasoning as required by *In re Lee*.

Regarding independent claim 14, Schwartz does not teach, disclose, or suggest the claimed timing source configured to generate a stable timing signal, a stabilized local oscillator configured to receive the stable timing signal and to use the stable timing signal as an input to generate a stabilized oscillator signal, a block converter configured to use the stabilized oscillator signal to convert the frequency of the communication signal to a stable lower frequency, a fiber optic transmitter configured to convert the lower frequency communication signal to an optical signal and to transmit the optical signal over fiber optic cable, or a fiber optic receiver configured

to receive the optical signal over the fiber optic cable. The Examiner does not even address the claimed limitations for the timing source, the stabilized local oscillator, the block converter, the fiber optic transmitter, and the fiber optic receiver. The issues for the antenna limitation are otherwise addressed herein with regard to *In re Lee*.

Regarding independent claim 35, it is believed patentable for the same reason identified above for the claimed limitations for the timing source, the stabilized local oscillator, the block converter, and the antenna. Again, it is noted that the limitations for the timing source, the stabilized local oscillator, and the block converter were not addressed by the Examiner.

Regarding claim 41, the Examiner stated that Schwartz discloses an MMDS signal at column 2, lines 33-39. The following is a quote from Schwartz at column 2, lines 33-39: "The central receiving means preferably comprises a receiver antenna for wireless communications. The central high-frequency signal is preferably within a frequency band used for cellular communications, cordless telephony, personal communication services, local radio-frequency communications, satellite television, interactive multi-media video, or high bit-rate local area networks." Schwartz does not disclose, teach, or suggest an MMDS signal. Schwartz further does not disclose any fiber optic transmitter or receiver.

Regarding independent claims 45, 57, 64, and 67, these claims were rejected by the Examiner for the same reasons identified above. These claims are patentable for the same reasons specified above.

For the reasons discussed above, Schwartz does not disclose, teach, or suggest the limitations of Applicants' claims 1, 8, 11, 14, 35, 41, 45, 57, 64, or 67. Therefore, Applicants submit that these claims are allowable. Withdrawal of the rejections of these claims respectfully is requested.

With regard to the claims depending from claims 1, 8, 11, 14, 35, 41, 45, 57, 64, and 67, they contain all of the limitations of their respective base claims. Therefore, they also are believed to be allowable. Withdrawal of the rejection of the depending claims respectfully is requested.

The Examiner rejected claims 6, 43, 50-51, 61, 65 and 68 under 35 U.S.C. § 103 as being unpatentable by U.S. Patent No. 5,930,682, issued to Schwartz ("Schwartz") in view of U.S. Patent No. 6,308,077, issued to Walsh ("Walsh").

The Examiner stated that he rejected the claims for the same reasons specified above. They therefore are patentable for the same reasons specified above.

The Examiner further stated that "it is noted that the use of a GPS receiver for generating a stable timing signal is known in the art as disclosed by Walsh (see Figs 1-2 and col. 3, lines 45-48). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the above teachings of Walsh to Schwartz for providing the oscillator stable signal derived from the GPS receiver as claimed, for reducing long-term frequency drift in the oscillator signal."

The Examiner did not address certain limitations for the above claims 6, 43, 50-51, 61, 65 and 68 at all in the rejection over Schwartz. Those limitations are addressed above. For this reason alone, Applicants request withdrawal of the rejection of these claims.

Further, Figure 1 of Walsh does show a GPS satellite 120, base stations, and towers. Figure 2 shows a processor, a phase detector, a digital to analog converter, a mux, an antenna, crystal oscillator, and a loop detector. Neither Figure shows any of the claimed limitations. For example, in claim 68, the references do not disclose, teach, or suggest receiving the communication signal at a receiving frequency at approximately an upper portion of a communication tower. Neither reference discloses, teaches, or suggests receiving a global positioning system signal at approximately the upper portion of the communication tower and using the global positioning system signal to generate a global positioning system based stable timing signal. Neither reference discloses, teaches, or suggests receiving the global positioning system based stable timing signal at a stabilized local oscillator located at approximately the upper portion of the tower and using the global positioning system based stable timing signal as an input to generate a stabilized local oscillator signal. Neither reference discloses, teaches, or suggests converting the receiving frequency of communication signal to a stable lower frequency using the stabilized local oscillator signal.

Column 3, lines 45-48 states " μ P 206 implements a digital filter to attenuate phase variations received by GPS receiver 100-101 to produce a stable clock frequency output from VCXO 210." However, this does not meet the claimed limitations in, for example, claim 68. The claim limitations in claim 68, for example, require "using the global positioning system signal to generate a global positioning system based timing signal" and "receiving the global positioning system based stable timing signal at a stabilized local oscillator located at

approximately the upper portion of the tower and using the global positioning system based stable timing signal as an input to generate a stabilized local oscillator signal” and “converting the receiving frequency of communication signal to a stable lower frequency using the stabilized local oscillator signal.” These limitations are not found in Walsh, and the Examiner does not allege that they are.

The citations produced by the Examiner state that the phase variations received by the GPS Receiver are filtered to produce a stable clock frequency output from the oscillator. Recall that the Walsh system is used to synchronize signals between base stations. (“However, these signals 110-113 by themselves are not usable, as the propagation delays (TX1, TX2, TY1, TY2) from LF transmitters 121-122 to base-stations 115-116 are unknown. Consequently, GPS signal 106-108 provide greater synchronization accuracy than LF signals 110-113. In accordance with the invention, base-stations 115-116 receive signals from a selected LF transmitter 121-122, determine the clocking rate of the GPS signals 106-108 utilized for synchronization, characterize the second clocking rate of signals 110-113 utilizing the first clocking rate, and employs signals 110-113 having been characterized for synchronization when GPS signals 106-108 are absent.” Column 1, lines 51-64.) The system of Walsh is not even used to convert ANY signals. The Examiner has mis-characterized the disclosure and teachings of Walsh.

Moreover, the Examiner cannot state that a reference discloses the use of a GPS signal in a communication system and therefore one skilled in the art can combine the references to get the claimed invention. Each and every limitation must disclosed or taught in the cited references. A motivation or suggestion to combine must be shown.

For these additional reasons, Applicants believe claims 6, 43, 50-51, 61, 65 and 68 are patentable over the cited references. Applicants respectfully request withdrawal of the rejections.

Further, the Examiner again uses impermissible hindsight in combining these references. The Examiner finds that the reason to combine the references is to reduce long-term frequency drift in the oscillator. (If this is not the stated reason to combine, then the Examiner did not provide any reason at all for a suggestion or motivation to combine. If this is the case, Applicants request withdrawal of the rejection for that reason alone.)

Applicants stated in their application the following. “These block converters have a local oscillator whose input frequency tends to move around. Thus, the output of the block

converter is not stable and subject to drift.” Page 4, lines 13-15. “In addition, the wireless communication systems of the present invention use a stable timing signal, such as a global positioning system (GPS) timing signal or another stable timing signal, to stabilize a local oscillator in a low noise block converter (LNB). The stable timing signal enables the LNB to output a more stable communication signal that has less drift and, therefore, has increased quality.” Page 6, lines 8-12. The Examiner is blatantly pulling the teachings of Applicants’ application and using them as reasons to combine cited references in violation of the MPEP and *In re Lee*. For this additional reason, Applicants request withdrawal of the rejection of these claims.

For these additional reasons, Applicants believe claims 6, 43, 50-51, 61, 65 and 68 are patentable over the cited references. Applicants respectfully request withdrawal of the rejections for these claims.

The Examiner rejected claims 1-6, 8-62, 64-68 under 35 U.S.C. § 103 as being unpatentable by U.S. Patent No. 6,411,825, issued to Csapo et al. (“Csapo”) in view of U.S. Patent No. 6,163,294, issued to Talbot (“Talbot”), and U.S. Patent No. 5,982,322, issued to Bickley et al. (“Bickley”).

Applicants incorporate by reference all arguments made in the prior Response with regard to Talbot and Bickley.

The Examiner states that Csapo teaches a GPS receiver and a frequency synthesizer for down converting the receiving signal to a lower frequency at column 6, lines 55-59. At column 6, lines 55-59 Csapo discloses “By locating the transceiver module in the RU, only low frequency signals need be passed from the transceiver module and the MU. On the receive side, the transceiver module converts a high frequency signal to a low frequency signal, and on the transmit side, the transceiver module converts a low frequency signal from the MU to a high frequency signal for transmission. Thus, only low frequency signals are passed between the RU and MU, minimizing power loss in the cables connecting the two units. This results in the ability to use smaller diameter, less costly cables.”

Csapo does not even mention anything about GPS signals in this citation. The citation teaches converting frequencies. Csapo does not state how they are converted. Csapo does not disclose or teach anything about a timing signal, that a GPS system can be used as a

timing source, or anything else relevant about a conversion system using a GPS signal. Csapo does not even mention a stabilizing system.

Csapo discloses the following with regard to Figure 17: "The PMU may have a global positioning system (GPS) antenna connected to it." Column 12, lines 33-34. That is the extent of any and all discussions about GPS. Csapo does not even state why someone might use the GPS signals.

The Examiner further states that Csapo discloses a frequency synthesizer. Again, a frequency synthesizer is not relevant to the claimed invention. Applicants do not claim a frequency synthesizer and do not even discuss a frequency synthesizer in Applicants application. It is not relevant to the claimed invention, to any obviousness analysis, or to combining any references.

Moreover, Csapo merely states that the "transceiver module 155 may include synthesizer circuitry, transmitter circuitry, and two receiver circuits (it is common to refer to a system's transmitter and receiver circuitry collectively as a "transceiver")." Column 7, lines 41-44. There is no other reference to synthesizer circuitry or for what it is used. The Examiner has mis-characterized Csapo.

Talbot discloses a time-tagging electronic distance measurement instrument. This reference is not in the same art as the present Application. One skilled in the art would not likely look to a time-tagging electronic distance measurement instrument for knowledge about down-converting high frequency signals. Regardless, the Examiner cites Figures 2 and 3 of Talbot and column 5, line 64-column 6, line 9 to make up the deficiencies of Csapo.

Talbot is directed to a satellite positioning system and an electro-optical total station system with a phase measurement device. The Talbot system mounts electronic distance measurement devices on theodolites which have telescopes that can precisely sight a horizontal and vertical angle to a target. Those combinations are electro-optical hybrids called "total stations." Column 3, line 66-column 4, line 1. An electronic distance meter (EDM) has an EDM transmitter for launching an outbound signal to a distant target and an EDM receiver for receiving a reflected signal from the distant target. Column 4, lines 19-23. The device measures the difference in the number of cycles of a reference frequency between the out-bound signal and the reflected signal. Column 4, lines 24-29. Post processing is then used to relate the corresponding measurements and time standards such that a distance to target measurement can

ultimately be computed. Column 4, lines 35-38. A GPS master reference oscillator is used to correct signals from a navigation computer that maintain satellite tracking. Column 4, lines 51-54.

At column 5, line 64-column 6, line 9, Talbot discloses a total station 72 with an input from a reference oscillator that is stabilized by a timing signal derived from a GPS receiver. Talbot states, for example, GPS receivers output a utility one-pulse-per-second (1PPS) that can be used to make minor corrections in the operating frequency of oscillator 74. Such a reference oscillator may be a voltage-controlled oscillator (VCO).

However, this citation does not (and none of Talbot does) disclose, teach, or suggest the claimed limitations. In claim 1, for example, Talbot does not teach a converting system configured to convert the communication signal from the frequency to a stable lower frequency using the stable timing signal, to convert the lower frequency signal to an optical signal, and to transmit the optical signal. Nor does Csapo disclose, teach, or suggest this.

In claim 8, for example, Talbot does not disclose, teach, or suggest a converting system configured to convert the communication signal from the frequency to a stable lower frequency using the stabilized oscillator signal. Nor does Csapo disclose, teach, or suggest this limitation.

In claim 11, for example, Talbot does not disclose, teach, or suggest a block converter configured to convert the communication signal from the frequency to a stable lower frequency using the stabilized local oscillator signal or an optical converting system located at approximately the upper portion of the tower and configured to convert the lower frequency communication signal to an optical signal and to transmit the optical signal over the fiber optic cable from approximately the upper portion of the tower. Talbot does not teach an MMDS system. Nor does Csapo disclose, teach, or suggest any of these limitations. Nor does either reference disclose the limitations as to location of the claimed components.

In claim 14, for example, Talbot does not disclose, teach, or suggest a block converter configured to use the stabilized oscillator signal to convert the frequency of the communication signal to a stable lower frequency. Talbot does not disclose, teach, or suggest a fiber optic transmitter configured to convert the lower frequency communication signal to an optical signal and to transmit the optical signal over fiber optic cable or a fiber optic receiver

configured to receive the optical signal over the fiber optic cable. Nor does Csapo disclose, teach, or suggest any of these limitations.

In claim 35, for example, Talbot does not disclose, teach, or suggest a block converter configured to use the stabilized oscillator signal to convert the frequency of the communication signal to a stable intermediate frequency. Nor does Csapo disclose, teach, or suggest this limitation.

The Examiner has not provided a specific rejection under this section of the Office action for many of the claims, including independent claim 41. Applicants presume that, since no specific rejection was provided for these claims as required by the MPEP, there is no rejection of those claims under this section.

However, for clarity, neither Csapo nor Talbot disclose the limitations of claim 41. Moreover, neither Csapo nor Talbot disclose, teach, or suggest an MMDS system as required by claim 41. Bickley also does not disclose an MMDS system. The Examiner has not provided any reason to combine any of these references or to modify them to meet the limitations of claim 41. (Although, as noted below, just because MMDS systems existed when Applicants filed this application, the Examiner cannot use that as a reason to modify any references, without more, such as a suggestion or motivation and a reasoned statement as to the modification.)

Talbot does not meet the deficiencies of Csapo. Neither Talbot nor Csapo alone or in combination disclose, teach, or suggest the claimed limitations.

For the reasons stated above, claims 1, 8, 11, 14, 35, and 41 are believed patentable. Withdrawal of the rejection of claims 1, 8, 11, 14, 35, and 41 respectfully is requested.

Claims 45, 57, 67, and 68 are believed patentable for the same reasons identified above. Withdrawal of the rejection of claims 45, 57, 67, and 68 respectfully is requested.

The claims depending from claims 1, 8, 11, 14, 35, and 41 and 45, 57, 67, and 68 contain all of the limitations of the base claim and any intervening claims. For this reason, the claims depending from claims 1, 8, 11, 14, 35, and 41 and 45, 57, 67, and 68 are believed patentable. Withdrawal of these claims respectfully is requested.

The Examiner has stated that he is combining Csapo with Talbot and using Bickley for the suggestion to combine. Note that this is not clear from either of the two prior Actions. The Examiner also stated in his Response to Arguments that the teaching, suggestion,

or motivation to combine is found in the references at Bickley col. 8, lines 1-19 and Talbot, Figs. 2-3 and col. 5, line 64-col. 6, line 9. Talbot was addressed above. Since all of the claim limitations are not found in either Csapo or Talbot, alone or in combination, the Examiner's stated motivation to combine is moot. However, for completeness, Applicants will respond to this portion of the Action.

The Examiner cited Bickley at column 8, lines 1-19 to state that it is well known in the art that a frequency synthesizer is a voltage controller oscillator (VCO) for generating a variety of pre-determined frequencies derived from a stable master oscillator. Bailey at column 8, lines 1-19 states the following:

Frequency synthesizer 100 is desirably a voltage controlled oscillator with internal phase lock loops or other arrangements well known in the art for generating a variety of predetermined frequencies derived from a stable master oscillator which is in turn calibrated by accurate timing or frequency signals from clock 41 and GPS receiver 34 via data processor 38. Various frequencies produced by frequency synthesizer 100 are used in transmit and receive modes. Not only does frequency synthesizer 100 provide the frequencies needed to operate on the desired transmit and receive channels, but also provides any other frequencies used internally by the transceiver for modulating or demodulating the various signals being processed. Since the output of frequency synthesizer 100 is controlled by data processor 38, the production of such frequencies for different purposes and at different times during receive and/or transmit functions is readily accomplished. Computer controlled oscillators are well known in the art. The receiver/transmitter function including encryption of the position and message information, is controlled by data processor 38.

However, Bickley is not relevant to the present claims. The present claims have not claimed a frequency synthesizer. What is or is not known in the art of frequency synthesizers has no bearing on the present claims. Moreover, it does not have any bearing on Talbot or Csapo.

Additionally, the cited reference does not state what the Examiner stated. The cited reference states that "Frequency synthesizer 100 is desirably a voltage controlled oscillator with internal phase lock loops or other arrangements well known in the art for generating a variety of predetermined frequencies derived from a stable master oscillator." Thus, the citation states that internal phase lock loops or other arrangements are well known in the art. It does NOT state that it is well known in the art that a frequency synthesizer is a VCO for generating a variety of predetermined frequencies derived from a stable master oscillator, as claimed by the Examiner. Thus, even the Examiner's stated reason for combining the references is wrong.

Although, Applicants maintain the attempt to combine the references was improper as stated above.

Further, Bickley not disclose, teach, or suggest the claimed limitations that are missing from Csapo and Talbot. In claim 1, for example, Bickley does not teach a converting system configured to convert the communication signal from the frequency to a stable lower frequency using the stable timing signal, to convert the lower frequency signal to an optical signal, and to transmit the optical signal. Nor does Csapo disclose, teach, or suggest this.

In claim 8, for example, Bickley does not disclose, teach, or suggest a converting system configured to convert the communication signal from the frequency to a stable lower frequency using the stabilized oscillator signal. Nor does Csapo and/or Talbot disclose, teach, or suggest this limitation.

In claim 11, for example, Bickley does not disclose, teach, or suggest a block converter configured to convert the communication signal from the frequency to a stable lower frequency using the stabilized local oscillator signal or an optical converting system located at approximately the upper portion of the tower and configured to convert the lower frequency communication signal to an optical signal and to transmit the optical signal over the fiber optic cable from approximately the upper portion of the tower. Nor does Csapo and/or Talbot disclose, teach, or suggest any of these limitations. Nor does any reference disclose the limitations as to location of the claimed components.

In claim 14, for example, Bickley does not disclose, teach, or suggest a block converter configured to use the stabilized oscillator signal to convert the frequency of the communication signal to a stable lower frequency. Bickley does not disclose, teach, or suggest a fiber optic transmitter configured to convert the lower frequency communication signal to an optical signal and to transmit the optical signal over fiber optic cable or a fiber optic receiver configured to receive the optical signal over the fiber optic cable. Nor does Csapo and/or Talbot disclose, teach, or suggest any of these limitations.

In claim 35, for example, Bickley does not disclose, teach, or suggest a block converter configured to use the stabilized oscillator signal to convert the frequency of the communication signal to a stable intermediate frequency. Nor does Csapo and/or Talbot disclose, teach, or suggest this limitation.

The Examiner has not provided a specific rejection under this section of the office action for many of the claims, including independent claim 41. Applicants presume that, since no specific rejection was provided for these claims as required by the MPEP, there is no rejection of those claims under this section.

However, for clarity, none of Csapo, Talbot, or Bickley disclose the limitations of claim 41. Moreover, none of Csapo, Talbot, or Bickley disclose, teach, or suggest an MMDS system as required by claim 41. The Examiner has not provided any reason to combine any of these references or to modify them. Just because MMDS existed when Applicants filed this application, the Examiner cannot use that as a reason to modify any references, without more, such as a suggestion to combine and reasoned findings.

Examiners Response to Arguments

Applicants requested that the Examiner respond to all of its Arguments in the prior action. Applicants thank the Examiner for providing responses. However, Applicants request that a reasoned statement with a factual analysis be provided, similar to the effort provided by Applicants herein. Applicants request that the Examiner not merely provide the MPEP Form paragraphs and restate what the Examiner stated in the rejection portion of the Action. Applicants noted that the Examiner provided MPEP Form Paragraphs 7.37.02 (regarding whether or not features of a second reference may be incorporated into a first reference), 7.37.03 (regarding hindsight reasoning), and 7.37.04 (regarding the Examiner has not provided adequate reasons to combine references), including the case law citations in those Form paragraphs and that the Examiner re-stated his position in those remarks without explaining the reasoning as required by *In re Lee*.

The Examiner cited *In re Fine*, 5 USPQ2d 1596 (Fed. Cir. 1988) for the proposition that the teaching, suggestion, or motivation to combine may be found in the cited references or in the knowledge generally available to one skilled in the art. The Examiner further stated that the suggestion to combine was found in Bickley.

However, as demonstrated above there was no teaching, suggestion, or motivation to combine in the references themselves. The Examiner incorrectly combined Csapo and Talbot and incorrectly used Bickley to provide the suggestion to combine Csapo and Talbot. This does not comply with the letter of the case citation provided by *In re Fine*. (Although, Applicants

have also shown that even all three references combined do not disclose, teach, or suggest all of the claim limitations.)

Further, the Examiner left out an important portion of the *In re Fine* case. The Court in that case found that to establish a *prima facie* case of obviousness, the PTO must show “some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references.” *In re Fine* at 1598. In the Examiner has not complied with these requirements.

In re Fine was cited recently by both *In re Thrift*, 63 USPQ2d 2002 (Fed. Cir. 2002) and *In re Lee*, 61 USPQ2d 1430 (Fed. Cir. 2002). *In re Thrift* further explained *In re Fine* and stated that “when examining claims for patentability, claims are interpreted as broadly as is reasonable and consistent with the specification.” *In re Thrift* at 2206.

In re Lee also further explained *In re Fine*. Applicants referenced the appropriate portions of *In re Lee* above and ask that the Examiner comply with them. Also in that case, the Court held that the PTO’s reliance on “common knowledge and common sense” did not fulfill the agency’s obligation to cite references to support its conclusions. *Id.* at 1344, 61 USPQ2d at 1434. Instead, the PTO must document its reasoning on the record to allow accountability. *In re Lee* at 1435. Here, the Examiner has made statements that one skilled in the art would modify a reference without providing citations to references and reasoned findings.

In re Lee also states “our case law makes clear that the best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references.” *In re Lee* at 1434. In the Office Action, the Examiner included the MPEP Form Paragraph with the citation to the *McLaughlin* case but then restated what the Examiner already stated. Namely, the Examiner stated that the motivation to combine is found in Talbot because Talbot teaches using a GPS timing signal to reduce frequency drift. However, the Examiner does not state how this Talbot citation is a motivation to combine with Csapo or Bailey. The arguments are circular.

The Examiner stated that Applicants were attempting to import limitations into the claims from the specification. (See Office Action, Pages 8-9.) That is not the case. Applicants merely refuted the Examiners attempts to combine the references and asked the Examiner to comply with *In re Thrift*. The Examiner has attempted to force teachings into the cited references where none exists.

The Examiner stated that it would be obvious to modify the cited reference because the it would be obvious for one skilled in the art to do so. The Examiner stated that "in the knowledge generally available to one of ordinary skill in the art of satellite, it would have been obvious at the time the invention was made to modify Csapo, Talbot, and Bickley to either locate the PMU or placing the GPS receiver in a particular position (i.e. the top) of the tower that would reduce blockage of GPS satellite signals caused by high or tall buildings." Applicants refuted that statement by explaining that the Examiner was not providing a reasoned statement, why the Examiner's purported reason for modifying the system was not correct, and how the Examiner was using hindsight. Applicants did not import limitations into the claims. Applicants refuted the Examiner's "motivation" to modify the references. The Examiner did not provide proof or reasoned findings. The Examiner did not comply with *In re Lee* or *In re Thrift*.

Additionally, Applicants note that the Examiner finds the claims "just merely recite the location of the GPS or stable timing signals with respect to the tower position." Office Action, Page 9. Regardless of what the Examiner thinks about the claim limitations, they must still be taught in the cited references to sustain a rejection.

Similarly, the Examiner finds that since MMDS systems were known at the time the application was filed, and since Csapo discloses a base station, it would be obvious to modify Csapo to obtain the claimed limitations. However, the Examiner did not provide a reason, suggestion, or motivation to modify Csapo, Talbot, or Bickley. Again, the Examiner is not complying with *In re Thrift* and *In re Lee*. Further, secondary considerations are found in the application itself. There was a great need that was unfulfilled in the MMDS systems. The MMDS systems used towers with heavy cable. The MMDS systems did not use fiber. The invention was an advance in the art that led to cost savings in the equipment. The towers are now lighter and can sustain more antennas. These reasons are not claim limitations. These reasons are evidence of secondary considerations that refute the statements of the Examiner.

If the Examiner continues to believe that any portion or portions of the claims can be rejected over Schwartz, Walsh, Csapo, Talbot, or Bickley, alone or in combination, or the Examiner otherwise disagrees with the Remarks above, Applicants specifically request that the Examiner respond to all arguments made in the Remarks section of this Response above, specifically including a detailed explanation of objective reasons for combining the references, Applicants request that the response provide a detailed and fact-based reasoning and explanation

and not only include re-written form paragraphs from the MPEP. Such a detailed explanation is needed by Applicants so that Applicants can adequately respond to a continued rejection. Applicants thank the Examiner in advance for cooperation in this respect.

The references cited by the Examiner and made of record have been reviewed by Applicants. Applicants have no further remarks with regard to the cited references.

Based on the foregoing, it is submitted that the Applicants' invention as defined by the claims is patentable over the references of record. Issuance of a Notice of Allowance is solicited.

Applicants' attorney welcomes the opportunity to discuss the case with the Examiner in the event that there are any questions or comments regarding the response or the application.

This is intended to be a complete response to the Examiner's Office action mailed on August 10, 2004.

Respectfully Submitted,

LATHROP & GAGE L.C.

By



James M. Stipek, Reg. No 39,388
Lathrop & Gage, L.C.
2345 Grand Boulevard, Suite 2300
Kansas City, MO 64108
Tel: (816) 460-5848
Fax: (816) 292-2001
Attorney for Applicant(s)

Initial Remarks

Recently, some USPTO Examiners have been not responding to Responses to Provoke an Advisory Action. The Examiners have stated that the "Amendment" requires further consideration or searching, and therefore the "Amendment" is not entered. This occurs whether or not there is an amendment or whether or not an amendment is merely grammatical or otherwise does not require a search. If no amendment is made, then the Examiners state that the claims have not been placed in a better form for allowance and then do not respond to the Response or enter the Response. This seems to be an effort to eliminate having to respond to the Responses to Provoke an Advisory Action. This, in turn, seems to violate the MPEP. Applicants attorney notes that this has NOT occurred with the present Examiner and requests that the Examiner fully respond to this Response to Provoke an Advisory Action.

Applicants attorney further requests that he be able to discuss any continuing issues with the Examiner in a telephone conference with the Examiner prior to the Examiner entering any Action. Applicants attorney will call the Examiner on or before Tuesday, October 19, 2004, to set up a telephone conference to discuss any remaining issues.

Also, the Examiner made new grounds of rejection in the Action and made the Action final. The Examiner stated that Applicants' Declaration (under 37 C.F.R. 1.131) necessitated the new grounds of rejection.

The following is a quote from MPEP 706.07(a).

"Under present practice, second or any subsequent actions on the merits shall be final, except where the examiner introduces a new ground of rejection that is neither necessitated by applicant's amendment of the claims nor based on information submitted in an information disclosure statement filed during the period set forth in 37 CFR 1.97(c) with the fee set forth in 37 CFR 1.17(p). . . . Furthermore, a second or any subsequent action on the merits in any application or patent undergoing reexamination proceedings will not be made final if it includes a rejection, on newly cited art, other than information submitted in an information disclosure statement filed under 37 CFR 1.97(c) with the fee set forth in 37 CFR 1.17 (p), of any claim not amended by applicant or patent owner in spite of the fact that other claims may have been amended to require newly cited art."

Applicants did not amend the claims in the prior response, and they did not submit an information disclosure statement in the prior response. Applicants submitted a Declaration under 37 C.F.R. 1.131. This Declaration is not an amendment to the claims requiring a new search. The finality of the action was premature, and the Examiner incorrectly

made the Action final. Applicants request that the Examiner withdraw the finality of the prior Action in compliance with MPEP 706.07(a) and 706.07(e).

Finally, the due date for this Response to Provoke an Advisory Action, which was October 10, 2004, fell on a Sunday. The following day was Columbus Day. Therefore, this Response to Provoke an Advisory Action is being timely filed, and no extension fee is required.